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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,347	08/30/2000	Douglas B. Moran	RECOP017	5971
21912	7590	01/24/2006	EXAMINER	
VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014			BAUM, RONALD	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/654,347

Applicant(s)

MORAN, DOUGLAS B.

Examiner

Ronald Baum

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in reply to applicant's correspondence of 14 November 2005.
2. Claims 1-12,16,17 are pending for examination.
3. Claims 1-12,16,17 are rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claim 3 rejection is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12,16,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porras et al, U.S. Patent 6,704,874 B1, and further in view of Beardsley et al, U.S. Patent 5,471,631.

4. As per claim 1; "A system for detecting intrusions on a host [Porras et al, col. 1,lines 20-31, col. 2,lines 19-38, col. 3,lines 46-62, col. 12,lines 8-59], comprising:

a sensor for

collecting information including
events and
timestamps from a logfile [Porras et al, col. 1,lines 34-62, col. 52-65, col. 3,lines 30-40,54-62, col. 6,lines 1-57, col. 10,lines 39-45, col. 13,lines 15-23]; and
an analysis engine configured to
identify a backward time step in the logfile by identifying
a first entry for which
an associated first log entry time is earlier in time than
a second log entry log entry time associated with
a second log entry entered in the log
prior to the first entry, [Porras et al, col. 3,lines 30-40, col. 6,lines 13-col. 7,line 8, col. 12,lines 45-58, whereas
the general timestamp/temporal nature of event log
timestamps processing is taught per se.],
determine that the backward time step is
associated with an event, and
assign a suspicion value to the event based at least in part on
the backward time step [Porras et al, col. 1,lines 34-col. 2,line 65, col. 6,line 58-col. 7,line 8, col. 8,lines 37-col. 9,line 6].”

6. Claim 2 ***additionally recites*** the limitations that; “The system as recited in claim 1, wherein the analysis engine is configured to identify a time step as forward if a timestamp of an entry in the logfile is later than an preceding entry in the logfile, and identify a time step as backward if a timestamp of an entry in the logfile is earlier than an preceding entry in the logfile.”.

The teachings of Porras et al (col. 1,lines 34-col. 2,line 65, col. 3,lines 30-40,54-62, col. 6,lines 1-57, col. 8,lines 37-col. 9,line 6, col. 10,lines 39-45, col. 13,lines 15-23) suggest such limitations.

7. Claim 3 ***additionally recites*** the limitations that; “The system as recited in claim 1, wherein the analysis engine is further configured to use expected activity level in the directory to determine the suspicion value.”.

The teachings of Porras et al (col. 1,lines 34-col. 2,line 65, col. 3,lines 30-40,54-62, col. 6,lines 1-57, col. 8,lines 37-col. 9,line 6, col. 10,lines 39-45, col. 12,lines 8-col. 13,line 23) suggest such limitations.

8. Claim 4 ***additionally recites*** the limitations that; “The system as recited in claim 1, further comprising a second sensor for collecting information including events and timestamps from a second logfile.”.

The teachings of Porras et al (col. 1,lines 34-col. 2,line 65, col. 5,lines 63-col. 6,line 13, col. 7,lines 55-66) suggest such limitations.

Art Unit: 2136

9. Claim 5 ***additionally recites*** the limitations that; “The system as recited in claim 4, wherein the analysis engine is configured to correlate a time step in the logfile with an event in the second logfile.”.

The teachings of Porras et al (col. 1,lines 34-col. 2,line 65, col. 5,lines 63-col. 6,line 13, col. 6,line 58-col. 7,line 8, col. 8,lines 37-col. 9,line 6) suggest such limitations.

10. Claim 6 ***additionally recites*** the limitations that; “The system as recited in claim 1, wherein the analysis engine is further configured to filter out expected time steps from further analysis.”.

The teachings of Porras et al (col. 1,lines 34-col. 2,line 65, col. 6,line 58-col. 7,line 8, col. 8,lines 37-col. 9,line 6) suggest such limitations.

11. Claim 7 ***additionally recites*** the limitations that; “The system as recited in claim 6, wherein the analysis engine is configured to filter out expected backward time steps by correlating them to Network Time Protocol adjustments.”.

The teachings of Porras et al (col. 3,lines 30-40, col. 6,lines 38-57) suggest such limitations.

12. Claim 8 ***additionally recites*** the limitations that; “The system as recited in claim 6, wherein the analysis engine is further configured to compute an expected time drift resulting from a Network Time Protocol adjustment, and compare a forward time step in the logfile with the expected time drift.”.

The teachings of Porras et al (col. 3,lines 30-40, col. 6,lines 38-57) suggest such limitations.

13. Claim 9 ***additionally recites*** the limitations that; “The system as recited in claim 8, wherein the analysis engine is further configured to compute a standard deviation of the expected time drift.”.

The teachings of Porras et al (col. 3, lines 30-40, col. 6, lines 38-57, col. 8, lines 37-67) suggest such limitations.

14. Claim 10 ***additionally recites*** the limitations that; “The system as recited in claim 9, wherein the analysis engine is further configured to label time steps with weighted distributions.”.

The teachings of Porras et al (col. 3, lines 30-40, col. 6, lines 38-57, col. 8, lines 37-67) suggest such limitations.

15. Claim 11 ***additionally recites*** the limitations that; “The system as recited in claim 1, further comprising a user interface, and wherein the analysis engine is configured, upon correlating a time step to a record of an event in a logfile, to present the record to a user for labeling as to suspicion value.”.

The teachings of Porras et al (col. 7, lines 19-32, col. 9, lines 13-20) suggest such limitations.

16. Claim 12 ***additionally recites*** the limitations that; “The system as recited in claim 11, wherein the analysis engine is further configured to propagate the suspicion value to related events.

The teachings of Porras et al (col. 6, lines 27-32, col. 7, lines 19-32, 56-67, col. 9, lines 13-20, col. 10, lines 65-67) suggest such limitations.

17. As per claim 16, this claim is the method claim for limitations from the apparatus claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection.

And further as per claim 17, this claim is an embodied software claim for limitations from the method claim 16 above, and is rejected for the same reasons provided for the claim 16 rejection.

The teachings of Porras et al suggest the base claims limitations (see “As per claim 1, ... 16, ... 17, ... Claim 2, ... 3, ... 4, ... 11, ... 12 *additionally recites* the limitations ...” paragraphs above) *without explicitly teaching* of “... identify a backward time step in the logfile by identifying a first entry for which an associated first log entry time is earlier in time than a second log entry log entry time associated with a second log entry entered in the log prior to the first entry ...” for the event log timestamps processing.

Beardsley et al, teaches of using time stamps to correlate data processing event times in connected data processing units (i.e., relative skewed clock or time tagged log entry correction upon found discrepancies in said time tags; Beardsley et al figures 1-8 and associated descriptions). The Beardsley et al invention also clearly encompasses the logging of detected intrusions on a host aspects on a host system.

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have been motivated to combine the Porras et al system for

detecting/logging/analysis thereof, and intrusions on a host, with the Beardsley et al teachings of using time stamps to correlate data processing event times in connected data processing units in order to provide the detecting/logging/analysis system with a more robust log analysis capability.

Such motivation to combine would clearly encompass the need to allow “solving and recovering from error conditions ... in identification of reasons for peripheral subsystem and data processing system failures [i.e., intrusion detection per se, and the results thereof]. ...it is critical that data processing events, ... preceding a data processing failure event be quickly and easily identified. Such identification has been difficult because there is no time correlation of error logs kept in a subsystem and error logs kept in a host processor relating to such data processing events. ...” (i.e., Beardsley et al col. 1, lines 36-53).

Response to Amendment

18. As per applicant’s argument concerning the lack of teaching by Porras et al in view of Beardsley et al of the “... backward time step ...” aspects of the claims 1, 16, 17 insofar as the identifying, determination of association to a specified event and assigning a suspicion value, the examiner has fully considered in this response to amendment; the arguments, and finds them not to be persuasive. The amended claim language is still too broad as phrased, the Beardsley et al log of time tagged events of which the event queue is enabled to wrap around, thereby creating a backward logged event. Therefore, as being *broadly interpreted by the examiner*, as per the claim language, would therefore be applicable in the rejection, such that the rejection support reference collectively encompass the said claim limitations in their entirety.

Art Unit: 2136

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

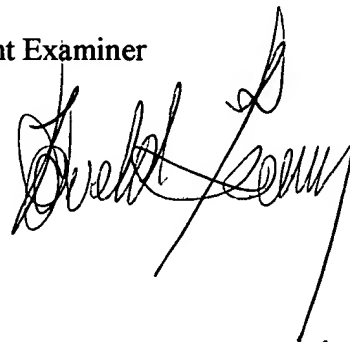
20. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861. The examiner can normally be reached Monday through Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (571) 272-3795. The Fax number for the organization where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. For more information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Baum

Patent Examiner



AYAZ SHEIKH

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